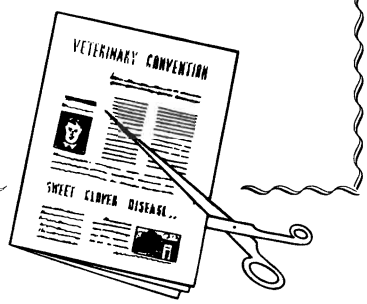
ABSTRACTS



THE CHEMOTHERAPY OF EXPERIMENTAL FOWL CHOLERA IN FOWLS (*GALLUS DOMESTICUS*). Terramycin given intramuscularly was superior to penicillin, procaine penicillin, dihydrostreptomycin, chloramphenicol, aureomycin and quinoxaline-1: 4-D_1-N-oxide in the treatment of experimental fowl cholera in chicks and chickens. Poorer results were obtained with sulphamerazine and sulphamezathine than with all these agents. Furazolidone was of no value.

One intramuscular injection of terramycin, 25 mg./kg., was usually sufficient to cure the disease in chicks and chickens infected intramuscularly 6 and 24 hours previously.

The continuous administration of sulphamerazine and sulphamezathine, 0.2 per cent, in the drinking water was very effective in controlling the disease when it was commenced before infection.

[Smith, H. Williams. The chemotherapy of experimental fowl cholera in fowls (*Gallus Domesticus*). J. Comp. Path. 65:309–316. (October) 1955.]

CANINE DISTEMPER VIRUS IN THE FERRET. Canine distemper virus has hitherto been considered as a single entity because of its behavior in the ferret which has been accepted as the most convenient test host for the isolation and propagation of the virus.

The study of 55 virus strains isolated from various parts of Britain has shown, however, that the strains varied considerably on isolation and became changed in virulence on passage. Some variants of the strains studied produced no immunity in the ferret to other variants.

These findings are regarded as definite evidence that canine distemper is not caused by a homogeneous virus, but by several types which are not stable entities with predictable behavior. These variants may undergo changes and are able to give rise to new forms of a modified nature and of different biological behavior. The significance of this phenomena of virus variability is briefly discussed.

[Larin, N. M. Canine distemper virus in the Ferret. J. Comp. Path. 65:325–333. (October) 1955.]

SOME BIOCHEMICAL AND CLINICAL ASPECTS OF MILK FEVER. A study has been made of the levels of serum calcium, serum magnesium and plasma inorganic, total acid soluble, lipid and total phosphates in clinical cases of milk fever and of the effect of calcium therapy and udder inflation on these blood constituents. The data have been analyzed according to the nature of the response to treatment.

Serum calcium, plasma inorganic, total acid soluble and total phosphates were significantly lower than in normal parturient cows of an age susceptible to milk fever. Serum magnesium and plasma lipid phosphate were not significantly altered.

The time relative to calving and the number of the calving at which milk fever occurred is presented for 93 cases of milk fever.

There was significant correlation between the severity of the clinical signs and the extent of the depression in serum calcium, plasma inorganic, total acid soluble and total phosphates. There was no correlation in the case of serum magnesium and plasma lipid phosphate.

Cases were classified into satisfactory and unsatisfactory response to treatment. Cases in the satisfactory response group occurred at an average time of 23 hours after calving and cases in the unsatisfactory response group at an average time of 6½ hours after calving, the difference being highly significant.

There was no correlation between the initial blood levels of the various constituents, or the nature of the clinical signs and the nature of the response to treatment.

Comparisons between the two groups in the period between treatment with intravenous calcium borogluconate and 10 hours after treatment showed that the behaviour of serum calcium was similar in the two groups. The behaviour of the plasma phosphates differed in the two groups. Cases showing a satisfactory response showed a sustained rise in the plasma phosphates while cases showing an unsatisfactory response showed only a slight rise in plasma phosphates immediately after injection: they then either remained steady or declined until th eend of the 10 hour period.

Udder inflation resulted in a sustained rise in all the blood constituents.

[Marr, A.; Moodie, E. W.; Robertson, A. Some biochemical and clinical aspects of milk fever. J. Comp. Path. 65:347–365. (October) 1955.]

STUDIES ON VACCINATION AND REVACCINATION FOR BOVINE BRUCELLOSIS. A comparative study of the immunological values of early vaccination, of revaccination and of late vaccination, in bovine brucellosis is reported.

One group of calves was vaccinated at 10 months of age, a second group at 10 months and again before breeding when 18 months of age; and a third group was vaccinated once at 18 months. Unvaccinated controls were added to the test. After exposure, all vaccinated animals showed less infection than unvaccinated controls, but the results were more favorable in the revaccinated and the late vaccinated groups than in those vaccinated at the age of 10 months.

The results for late vaccination confirmed what has been observed by the author in field vaccinations.

[Sieiro, Francisco, D.V.M. Studies on vaccination and revaccination for bovine brucellosis. Amer. Jour. Vet. Res. 17:36–39. (January, 1956).]

LABORATORY STUDIES ON ERYSIPELAS, III. DURATION OF IMMUNITY IN PIGS VACCINATED WITH ADSORBED BACTERIN, AND WITH SERUM AND CULTURE. A total of 154 weanling pigs were vaccinated against erysipelas either with culture and serum at the recommended dosages of 0.5 cc. and 10.0 cc., withone of 5cc. dose of an adsorbed erysipelas bacterin, or with two doses of the bacterin at an interval of one month. Groups of the vaccinated pigs and of 63 unvaccinated controls were challenged at monthly intervals starting approximately two months following vaccination, through 6½ months of age. Challenge was performed by the skin scarification method and criteria of immunity were cutaneous reactions using Shuman's classifications, temperature rise and "stiffness." Results were examined statistically.

In all cases, more satisfactory results in protecting pigs to market age were obtained by the administration of one dose of bacterin than with culture and serum, but definite superiority was demonstrated by the administration of a second immunizing dose of bacterin one month following the first.

[Gouge, H. E., D.V.M.; Bolton, R., B.S.; Alson, M. C., D.V.M. Laboratory studies on erysipelas. III. Duration of immunity in pigs vaccinated with adsorbed bacterin, and with serum and culture. Amer. Jour. Vet. Res. 17:135–139. (January, 1956].